# Preparing for the Internal Assessment: INTRODUCTION section

*The Psych IA is explained in the OUP textbook, p488-512. Read p493-4 for details about the introduction.*

## Writing your INTRODUCTION: what to include

Paragraph 1: Give an overview of the **theory**/model on which the experiment is based and explain *relevant* aspects of the theory/model.

Paragraph 2: Describe the **experiment** as you would in a SAQ, e.g. including: aim, method (sampling, participants, experimental design, procedure, variables), results (include specific numbers), conclusions. It’s important to fully explain the aim/conclusion to show your understanding, **linking back to the theory**/model.

Beneath these paragraphs, put each of the following elements on its own line to make each one stand out:

Briefly state how you will simplify/modify the experiment (if relevant).

State your **aim**. Explain the **relevance** of your aim

**Experimental hypothesis** (constructs, then **operationalize**)

**Null hypothesis** (constructs, then **operationalize**)

## Pro Tips:

Many real experiments have several independent variables, each with more than two conditions. It’s ok to choose a complex experiment for your IA, but you have to simplify it by focusing on one IV (with two conditions) and one DV.

Write concisely (using as few words as possible to convey the full information) so you have enough words left for the rest of your report. Prioritise the parts of the theory and study that are most relevant to your own hypothesis – it’s not essential to explain every detail.

Cite your sources using APA referencing. In-text citations will look like the ones in the textbook and your SAQs/LAQs (name of researcher plus year of publication).

In order to accurately state your aim and hypotheses, you must first work out the IV and DV, paying careful attention to the constructs and how you are operationalizing them.

Checklist: Have you worked out the following?

* Aim: To investigate the effect of [IV construct] on [DV construct] in [situation/population].
* Independent Variable: [Construct name]
  + Condition 1: [name and how it is operationalized]
  + Condition 2: [name and how it is operationalized]
* Dependent Variable: [Construct name and how it is operationalized]
* Experimental Hypothesis: [Constructs and operationalized]
* Null Hypothesis: [Constructs and operationalized]

## YOUR TASK: Practice identifying relevant elements of the introduction

Complete the examples:

1. Researcher(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Aim:** To investigate the effect of environmental stimulation on neuroplasticity in rats. | |
| **Explain relevance of aim:** | |
| **Independent Variable: (construct)**  Level of environmental stimulation | **Dependent Variable: (construct)**  Neuroplasticity |
| **Condition 1:**  **Name:** “Enriched environment cage”  **How it is operationalized:** 6-8 rats and new toys every day | **How it is operationalized:**   1. Size of the brain (micrometers) 2. Weight of the brain (mg) 3. Ratio of RNA to DNA 4. Size of neurons (µm) 5. Level of neurotransmitter activity (amount of acetylcholinesterase) (µl) |
| **Condition 2:**  **Name:** “Impoverished environment cage”  **How it is operationalized:** Smaller cage in separate room |
| **Condition 3:**  **Name:** “Standard laboratory cage” (control condition)  **How it is operationalized:** Several rats in an adequate space |
| **Experimental Hypothesis:**  **(Constructs)** Level of environmental stimulation will affect neuroplasticity.  **(Operationalised)** Rats in the “Enriched environment cage” **(**6-8 rats and new toys every day) will have significantly larger neurons (µm) than rats in the “Impoverished environment cage” (smaller cage in separate room) or “Standard laboratory cage” (several rats in an adequate space). | |
| **Null Hypothesis:**  **(Constructs)** Level of environmental stimulation will not affect neuroplasticity.  **(Operationalised)** There will be no significant difference in the size of neurons (µm) of rats in the “Enriched environment cage” **(**6-8 rats and new toys every day) compared to those in the “Impoverished environment cage” (smaller cage in separate room) or “Standard laboratory cage” (several rats in an adequate space). | |

\* Note all the info in brackets in the hypotheses – it’s important to operationalize IV and DV here.

1. Researcher(s): Hare et al (2017)

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| **Aim:** To investigate the effect of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | |
| **Explain relevance of aim:**  Establishing whether AND and/or EST signal gender and/or affect perceptions of attractiveness will help to establish whether they should be classified as “sex pheromones”. If they do have these effects, it will help psychologists to understand how these pheromones may influence the formation of relationships. | | |
| **Independent Variable: (construct)**  Presence of pheromone | **Dependent Variable 1: (construct)**  Gender signaling | **Dependent Variable 2: (construct)**  Perceptions of attractiveness of opposite sex |
| **Condition 1:**  **Name:** AND  **How it is operationalized:** Cotton ball with AND and clove oil taped under nose throughout task | **How it is operationalized:**  Mean number of points awarded for  participants’ perceptions of gender of five gender-neutral face morphs (where points are awarded if a participant perceives the gender in accordance with the pheromone they are given, i.e. pps in the AND condition perceive the morph as male and pps in the EST condition perceive the morph as female). | **How it is operationalized:**  Mean number of points awarded by participants when rating opposite-sex photographs for attractiveness on a scale of 1-10 (where 10 is most attractive). |
| **Condition 2:**  **Name:** EST  **How it is operationalized:** Cotton ball with EST and clove oil taped under nose throughout task |
| **Condition 3:**  **Name:** Control  **How it is operationalized:** Cotton ball with clove oil taped under nose throughout task |
| **Experimental Hypothesis:**  **(Constructs)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will cause \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  **(Operationalised)** Participants in the AND/EST conditionswill score significantly more points for gender signaling than participants in the control condition.  Participants in the AND/EST conditionswill award significantly more points (1-10 scale) for attractiveness of opposite-sex photographs than participants in the control condition. | | |
| **Null Hypothesis:**  **(Constructs)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **(Operationalised)** Participants in the AND/EST conditionswill \_\_\_\_\_\_\_ score significantly more points for gender signaling than participants in the control condition.  Participants in the AND/EST conditionswill \_\_\_\_\_\_\_\_ award significantly more points (1-10 scale) for attractiveness of opposite-sex photographs than participants in the control condition. | | |

\*You can see the hypotheses get quite complex when there is more than one DV!

1. Researcher(s): Bouchard et al (1990)

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| **Aim:** To investigate the effect of genes on intelligence in adult twins. | | |
| **Explain relevance of aim:**  Isolating genes and shared environment will help psychologists to understand the contribution of each factor to intelligence, which in turn could be used to understand the wider role of genes and environment in the nature/nurture debate. This understanding could be used to inform educational policies. | | |
| **Independent Variable 1: (construct)**  Level of genetic similarity | **Independent Variable 2: (construct)**  Level of environmental similarity | **Dependent Variable: (construct)**  Level of similarity in intelligence |
| **Condition 1:**  **Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **How it is operationalized:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Condition 1:**  **Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **How it is operationalized:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **How it is operationalized:**  Concordance rates for:   1. Number of points scored in IQ tests 2. Number of points scored in interviews and observational measures 3. (plus other tests – in total around 50 hours per twins) |
| **Condition 2:**  **Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **How it is operationalized:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Condition 2:**  **Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **How it is operationalized:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Experimental Hypothesis:**  **(Constructs)** Twins with a higher level of genetic similarity will have a higher level of similarity in intelligence.  **(Operationalised)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | |
| **Null Hypothesis:**  **(Constructs)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **(Operationalised)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  . | | |

For the experiment that you have chosen to focus on in the practice IA Introduction:

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| **Aim:** | |
| **Explain relevance of aim:** | |
| **Independent Variable: (construct)** | **Dependent Variable: (construct)** |
| **Condition 1:**  **Name:**  **How it is operationalized:** | **How it is operationalized:** |
| **Condition 2:**  **Name:**  **How it is operationalized:** |
| **Experimental Hypothesis:**  **(Constructs)**  **(Operationalised)** | |
| **Null Hypothesis:**  **(Constructs)**  **(Operationalised)** | |